The recent slew of newspaper stories on the reorganization of the U.S. Department of Homeland Security (DHS) after just two years in existence provides a great opportunity to understand the complex international security market.

By the time this column appears in print, much of the speculation on the DHS’s reorganization will have morphed into solid recommendations from Homeland Security Secretary Michael Chertoff, but in the meantime, let’s test generally accepted knowledge of the security market and U.S. homeland security in particular.
How many people would know that the DHS is the largest civilian federal agency—by far—but only represents some 22 agencies out of 187 federal agencies with homeland security responsibilities? Would you know that the DHS—with 30,000 customs, secret service, and border officers—is roughly three times the size of the U.S. Federal Bureau of Investigation but still has responsibilities for non-security applications such as tariff collections? Who would know that the DHS is only one of five major groups/markets responsible for protecting the United States from a terrorist attack?

According to longtime SPIE member Dan Inbar, the chief technical officer at Homeland Security Research Corporation (HSRC; Washington, DC) and one of the first market analysts to focus exclusively on homeland security before 9/11, surprises are common, even expected, within the homeland security market. Accounting practices are still based on pre-DHS federal structures, which make information on homeland-security-related projects difficult to gather.

One of the results of infrastructure lagging behind policy, Inbar says, is that there is a misconception about homeland security outlay from the United States and from other governments around the world. Most outsiders would say that the DHS and the armed forces are responsible for protecting the United States from terrorists. Within the United States, however, the DHS owns only approximately 35% of federal U.S. homeland security spend; the Department of Defense controls 30%, other federal agencies control about another 30%, and the intelligence community controls close to 5%, with the majority of intel spending going toward R&D. This breakdown does not include homeland security efforts from the private sector—the fifth stakeholder—such as the utility and chemical industries.

Market misconceptions continue as one looks beyond North America. According to Inbar’s latest findings in the “2006–2015 Homeland Security & Homeland Defense Global Market” report, the United States comprises 52% of global homeland security funding in 2006, but its slice of the pie is expected to drop to 42% by 2015. “People tend to think of homeland security as an issue for democratic societies, but that’s not the case. There are many authoritarian governments that spend considerable sums to keep regimes in power,” Inbar says.

In 2005, the United States is expected to spend $23.9 billion on homeland security or 52% of the global homeland security outlay of $46.4 billion, according to Inbar’s HSRC. Europe is expected to come in second, spending $8.1 billion in 2005, followed by the Australia/Japan/Pacific Rim group at $5.1 billion and the Middle East at $4.6 billion. By 2015, U.S. outlay will increase to $74.8 billion, while Europe increases its spending to $39.6 billion. China and India, which are expected to account for only 4% or $1.7 billion in 2005, are expected to significantly increase funding to 9% of global expenditures, or $16.8 billion, by 2015.

While global spending is split among U.S. and rest-of-world segments, the interests of these two groups do differ. “The rest of the world doesn’t invest as much in guarding against WMD [weapons of mass destruction],” Inbar says. “Setting Europe aside for a moment, markets such as India, China, and the Middle East are more concerned about conventional weapons, guarding against improvised explosives, [and] perimeter and force protection. Europe is midway between the U.S. and the rest of the world, spending its funding on both WMD and conventional weapons detection.”

Chemical and biological weapons detection is expected to dominate global spending when averaged across all markets, Inbar says, but there is great interest in optical technologies across many applications. “When you look at the SPIE conferences on remote sensing and security, you see all the applications, from the lab on a chip, which is real and here today, to new satellite systems,” Inbar says. “SPIE and its members are already there, working on the problems.”

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